

## Assessment of Knowledge and Home Management of Diabetes Mellitus among Patients in a Selected Community

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### Abstract

The objectives of the study were to assess the knowledge of Patients regarding Diabetes Mellitus and to assess the home management of Diabetes Mellitus. *Method:* Quantitative Research with descriptive comparative research design was used. Structured questionnaire was used to assess the knowledge and home management of Diabetes Mellitus. Convenience sampling was adopted to select 100 Diabetic Patients from a selected urban community in New Delhi. *Results:* Data was analyzed using Descriptive and Inferential statistics. The findings showed that 52% of the samples had adequate knowledge on Diabetes Mellitus and 56% of the samples had unhealthy home management score of Diabetes Mellitus. *Conclusion:* The present study revealed that most of the samples had unhealthy home management score of Diabetes Mellitus. The study thus implies that people in the community should be taught and demonstrated the healthy home management of Diabetes Mellitus.

**Keywords:** Diabetes Mellitus; Knowledge; Home management.

### Introduction

Diabetes is not a simple matter of the desert denial, it is a complex disease characterized by degeneration, disabilities and death. It is known as controllable disease but not curable. Lack of understanding about disease, selfcare and noncompliance with its management leads to complications that ultimately affect the cost of care and reduce the quality of life. Acute

complications include diabetic ketoacidosis and nonketotic hyperosmolar coma. Serious long-term complications include heart disease, stroke, kidney failure, foot ulcers and damage to the eyes. Globally, as of 2013, an estimated 382 million people have diabetes worldwide, with type 2 diabetes making up about 90% of the cases. This is equal to 8.3% of the adult population, with equal rates in both women and men. Worldwide in 2012 and 2013 diabetes resulted in 1.5 to 5.1 million deaths per year, making it the 8<sup>th</sup> leading cause of death. Diabetes overall at least doubles the risk of death. The number of people with diabetes is expected to rise to 592 million by 2035.<sup>1</sup>

### Materials and Methods

Quantitative Research with descriptive research design was used. Researcher selected 100 sample from a selected community of Delhi by convenient sampling. A Structured questionnaire was used to

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assess the knowledge and home management of Diabetes Mellitus. Formal administrative approval was obtained from the concerned authority to conduct the final study.

**Results**

**Table 1:** Socio demographic profile of the subjects n=100

Demographic Variables	Frequency	Percentage (%)
<i>Age</i>		
20-30 years	12	12
31-40 years	16	16
41-50 years	44	44
51 years and above	28	28
<i>Religion</i>		
Hindu	50	50
Christianity	10	10
Islam	40	40
Buddhism	0	0
<i>Education</i>		
Secondary	30	30
Senior secondary	40	40
Graduate	30	30
Post graduate	0	0
<i>Marital status</i>		
Married	88	88
Unmarried	12	12
Widower	0	0
Divorced	0	0
<i>Gender</i>		
Male	44	44
Female	66	66
<i>Occupation</i>		
Unemployed	44	44
Govt. job	10	10
Private job	34	34
Business	12	12
<i>Income</i>		
Less than 10,000	18	18
10001-20000	24	24
20001-30000	30	30
Above 30000	28	28
<i>Duration of illness</i>		
Less than 12 months	38	38
13 months-24 months	16	16
Above 24 months	46	46

**Table 2:** Frequency and percentage of samples by their diet, history of other illness, family history of Diabetes Mellitus and treatment type. n=100

Variable	Frequency	Percentage (%)
<i>Dietary habit</i>		
Vegetarian	40	40
Non-vegetarian	42	42
Eggetarian	18	18
<i>History of other illness</i>		
Hypertension	40	40
Tuberculosis	08	08
Heart problems	20	20
Asthma	10	10
No other illness present	22	22

*Family history of Diabetes Mellitus*

Yes	40	40
No	60	60
<i>Type of treatment</i>		
Insulin	40	40
Oral antidiabetic drugs	60	60

**Table 3:** Subject's knowledge score on Diabetes mellitus n=100

Knowledge Score				
Possible Range of Scores	Obtained Range of Scores	Median	Mean	S.D
0-30	5-17	11.5	12	3.42

**Table 4:** Frequency and percentage distribution of subjects by their knowledge scores n=100

Category	Frequency	Percentage
Adequate (≥ 75%)	52	52
Inadequate (< 75%)	48	48

**Table 5:** Frequency and percentage distribution of subjects by their home management scores n=100

Category	Frequency	Percentage
Healthy	44	44
Unhealthy	56	56

**Table 6:** Subject's Home management score of Diabetes mellitus n=100

Possible Range of Scores	Obtained Range of Scores	Median	Mean	S.D
0-15	1-15	11	8.4	3.48

**Discussion**

A study conducted by Muhammad Saleh Memon, et to assess the knowledge, attitude and practices of diabetes and diabetic retinopathy in the general population in Bin Qasim Town (BQ), Karachi using an interview Questionnaire. The participants were 540 secondary school boys aged between 15 to 20 years. The study showed a lack of knowledge of diabetes in the surveyed community, more marked in females, illiterate which is consistent with the findings of the present study where 48% subjects had inadequate knowledge regarding Diabetes Mellitus.<sup>2</sup> A systematic review was done to assess Knowledge and awareness of diabetes mellitus and its risk factors in Saudi Arabia. Nineteen articles were included in the systematic review. These studies included the following populations: DM patients, healthcare workers, medical students, secondary school students, and general population. Findings of the study showed deficient knowledge about Diabetes Mellitus which is consistent with

the findings of the present study where 48% of the subjects didn't have adequate knowledge regarding Diabetes Mellitus.<sup>3</sup> Another study was conducted to assess the knowledge, attitude and practice about diabetes among diabetic patients in Pondicherry and it was concluded that the knowledge about Diabetes Mellitus was poor.<sup>4</sup> The means of improving knowledge and awareness of DM needs to be integrated into existing healthcare systems and processes to better inform patients, families, and communities about this chronic disease.

### Conclusion

The present study revealed that 52% of the samples had adequate knowledge on Diabetes Mellitus and 56% of the samples had unhealthy home management score of Diabetes Mellitus. The study thus implies that awareness regarding Diabetes Mellitus should be created by nurses in hospitals, clinics as well in community. Healthy home management of Diabetes Mellitus should

be demonstrated to the people so that Diabetes Mellitus can be detected early and if present, early and timely interventions can be taken.

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